

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SG2005/000061

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. 7: H01L 33/00 .

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DWPI and JAPIO: LED, light emitting diode, H01L 33/-, reflect, layer, film, contact, electrode, ohmic, reflect, conduct, metal, epilayer, epitaxial, roughen, remove, texture

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|------------------------------------------------------------------------------------|-----------------------|
| A | WO 2001/047039 A (LUMILEDS LIGHTING US LLC) 28 June 2001 | |
| A | US 6 627 921 B (WONG et al) 30 September 2003 | |
| E,A | US 6 821 804 B (THIBEAULT et al) 23 November 2004 | |
| E,A | WO 2004/102686 A (CREE INC) 25 November 2004 | |
| A | Patent Abstracts of Japan, JP 2001-168387 A (TOYODA GOSEI CO LTD) 22 June 2001 | |

Further documents are listed in the continuation of Box C See patent family annex

| | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * Special categories of cited documents: | |
| "A" | document defining the general state of the art which is not considered to be of particular relevance |
| "E" | earlier application or patent but published on or after the international filing date |
| "L" | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) |
| "O" | document referring to an oral disclosure, use, exhibition or other means |
| "P" | document published prior to the international filing date but later than the priority date claimed |
| "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "&" | document member of the same patent family |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Date of the actual completion of the international search 9 May 2005 | Date of mailing of the international search report 12 MAY 2005 |
| Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929 | Authorized officer S. T. PRING Telephone No : (02) 6283 2210 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/SG2005/000061

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | | | Patent Family Member | | | | |
|-------------------------------------------|-------------|----|----------------------|----|-------------|----|------------|
| WO | 2001/47039 | AU | 27389/01 | DE | 102 13 701 | EP | 1 161 772 |
| | | JP | 2001-237458 | JP | 2002-335014 | US | 6 514 782 |
| | | US | 6 573 537 | | | | |
| US | 6 627 921 | JP | 2002076523 | US | 6 562 648 | US | 2003122141 |
| US | 6 821 804 | AU | 17905/01 | AU | 41391/01 | CA | 2 393 007 |
| | | CA | 2393081 | CN | 1402880 | CN | 1423842 |
| | | EP | 1 234 334 | EP | 1 234 344 | US | 6 410 942 |
| | | US | 6 657 236 | US | 2004041164 | WO | 2001/41219 |
| | | WO | 2001/41225 | | | | |
| WO | 2004/102686 | US | 2005029533 | | | | |
| JP | 2001-168387 | JP | 2001-168386 | US | 6 531 719 | US | 6 623 998 |
| | | US | 2001050376 | US | 2003085411 | | |

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX